



Arroyo Colorado Watershed Protection Plan Update

Water Body	Arroyo Colorado Tidal (Seg 2201), Arroyo Colorado Above Tidal (Seg 2202)
Location	Cameron, Hidalgo, and Willacy Counties
River Basin	Nueces-Rio Grande Coastal (22)
Contractor	Texas Water Resources Institute (TWRI)
Project Period	June 4, 2012 to August 31, 2016
Project Total	\$993,462 (Federal 60% and Local Match 40%)

Background

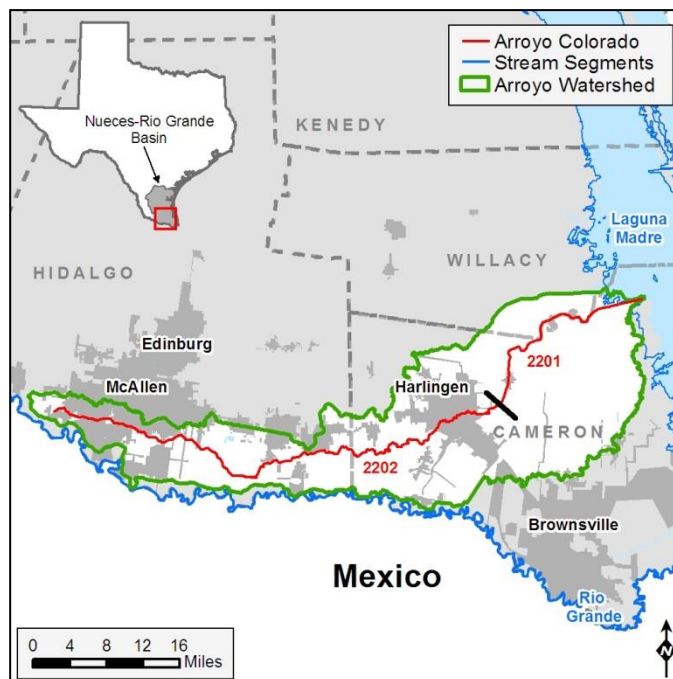
The Arroyo Colorado is an important local water body that provides freshwater inflows to the Laguna Madre. The State has classified the stream into two distinct segments, the Arroyo Colorado Above Tidal (Segment 2202) and the Arroyo Colorado Tidal (Segment 2201). Both segments are impaired due to bacteria concentrations that exceed the state criteria for contact recreation. In addition, the tidal segment sometimes experiences periods of low dissolved oxygen that can result in fish kills. In order to restore water quality, the Arroyo Colorado [Watershed Protection Plan \(WPP\)](#) was completed in 2007. Implementation efforts have been ongoing since then.

Project Description

The process to update the WPP has begun. A model of the Arroyo Colorado Tidal segment is needed to simulate the dissolved oxygen (DO) level responses to proposed watershed management measures. The Soil and Water Assessment Tool (SWAT) model is being used to model nutrient, sediment, and other pollutants input to the stream. These pollutant loads are being fed into an instream model of the tidal segment that can simulate DO levels. Bacteria loading to Segments 2201 and 2202 is being modeled using SWAT. Following completion of the models, the results will be presented to the Arroyo Colorado Partnership. Stakeholders are currently developing the WPP document and the best management practices to be included which will address the DO and bacteria impairments. Once the modeling is complete the results will be incorporated in the WPP. The WPP document is scheduled to be submitted to EPA for review by November 2016.

Current Status

Modeling is almost complete. SWAT results have been incorporated into the WPP. Final modeling results and complete WPP update to be presented to stakeholders in November 2016.



Public Participation

The Arroyo Colorado Watershed Partnership provides a forum for discussion regarding WPP development, implementation efforts and water quality issues. Updates for this project will be given at Partnership meetings. The public is welcome to attend. Meeting dates are posted on the [Arroyo Partnership Website](#).

For More Information

TCEQ Project Manager

Tim Cawthon
512.239.0845; Tim.Cawthon@tceq.texas.gov

TWRI Project Manager

Jaime Flores
(956) 969-5607; jjflores@ag.tamu.edu

Project Highlights

- 06/2012 – Dissolved Oxygen Modeling contract was executed.
- 07/2012 – QAPP Planning meeting was held.
- 07/2012 – Arroyo Colorado stakeholders vote to include bacteria in the update to the WPP.
- 10/2012 – Reconnaissance trip for evaluating potential monitoring station locations was conducted.
- 10/2012 – Acquired Data QAPP for evaluating current water quality data was executed.
- 03/2013 – Draft of Modeling QAPP received by TCEQ.
- 03/2013 – Draft of Monitoring QAPP received by TCEQ.
- 04/2013 – Arroyo Tidal Segment Data Analysis Report completed.
- 04/2013 – Arroyo Colorado Partnership began assessment of current WPP for potential changes in update.
- 06/2013 – Arroyo Colorado Monitoring QAPP executed.
- 06/2013 – 08/2013 – Monitoring in the Tidal segment was conducted.
- 09/2013 – Modeling QAPP executed.
- 09/2013 – Bacteria Modeling contract was executed.
- 11/2013 – Post-Award meeting for bacteria modeling contract was held.
- 07/2014 – Modeling QAPP amended to include bacteria modeling.
- 02/2015 – An amendment to extend both contracts until August 31, 2016 was executed.
- 03/2015 – Partnership meeting held.
- 07/2015 – Partnership meeting held.
- 10/2015 – Partnership meeting held and initial modeling results presented.
- 11/2015 – Individual meetings with stakeholders took place regarding modeling results.
- 04/2016 – Partial WPP draft sent to stakeholders for review.
- 04/2016 – Stakeholder meeting to discuss WPP comments
- 05/2016 – Partial WPP draft sent to stakeholders for review.
- 06/2016 – Stakeholder meeting to discuss WPP comments.
- 07/2016 – Individual meetings with city stormwater personnel regarding urban BMPs to include in the update.
- 10/2016 – SWAT results incorporated into the WPP document.